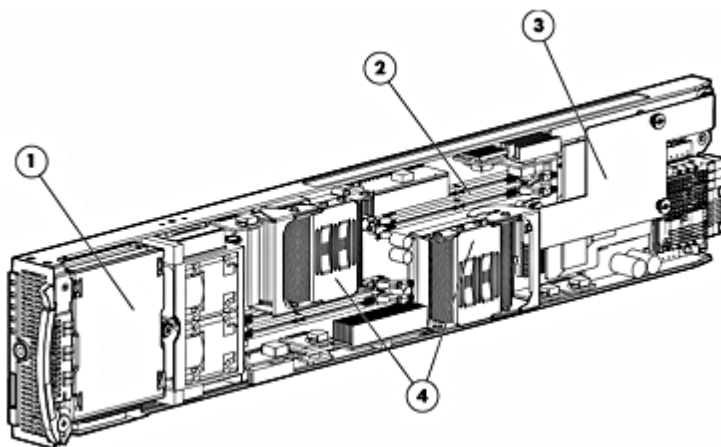*Overview*

1. Up to two optional small form factor non-hot pluggable ATA or SAS hard disk drives
2. Up to 16 GB of memory (using optional PC2700 DDR SDRAM)
3. Mezzanine Card: Internal 4 Port SAS HBA (SAS models only) or optional Dual-Port Fibre Channel Adapter
4. Up to two Dual-Core AMD® Opteron™ 200 Series processors

What's New

The ProLiant BL35p server blade now supports two non-hot plug serial attached SCSI (SAS) hard disk drives to deliver even greater performance and reliability within the same ultra-dense form factor and power envelope.

- Support for two internal small form factor serial attached SCSI (SAS) hard disk drives
    - Non-hot pluggable
    - 36-GB or 72-GB hard disk drive options
    - Hardware RAID 0 or 1 support

At A Glance

This document covers the HP ProLiant BL35p server blade only. For more information on HP BladeSystems p-Class Infrastructure and HP BladeSystem p-Class Interconnect Components, please see the following QuickSpecs:
HP BladeSystem p-Class Infrastructure: http://h18000.www1.hp.com/products/quickspecs/12330_div/12330_div.HTML
HP BladeSystem p-Class Interconnect Components:
http://h18000.www1.hp.com/products/quickspecs/12331_div/12331_div.HTML

- Up to two Dual-Core AMD® Opteron™ 200 Series processors running at 2.2 GHz, 2.0 GHz, and 1.8 GHz with 1MB L2 cache per core and 1GHz HyperTransport (lower CPU power rating per processor: 68 watt)
- AMD® Opteron™ 8000 series chipset
- 1024 MB (2 x 512 MB) or 2048 MB (4 x 512 MB) PC3200 DDR 400 MHz memory, expandable to 8 GB (using optional PC3200 DDR SDRAM) or 16 GB max (using optional PC2700 DDR SDRAM)
- Integrated Lights-Out (iLO) Advanced Pack with static IP bay configuration and HP BladeSystem wizard features
- Two (2) NC7781 PCI-X Gigabit NICs (on a mezzanine card)
- One 10/100T NIC (embedded) dedicated to iLO management
- Supports up to two optional small form factor serial attached SCSI (SAS) 72-GB non-hot plug hard drives or two optional small form factor ATA 60-GB non-hot plug hard drives
- Internal 4 Port SAS HBA (on a mezzanine card) supports RAID 0 or 1
- BIOS-Enhanced RAID for Linux enables both primary and secondary hard drives to be bootable

Overview

- Dual-Port Fibre Channel Adapter (2Gb) option for SAN connectivity
- HP ProLiant BL35p server blade plugs vertically into HP BladeSystem p-Class Blade Sleeve; sleeve plugs into 6U blade enclosure
- Local I/O cable provides two USB ports, one video port, one iLO port and serial port
- Integrated Access Tool for blade management and enhanced server blade documentation including Best Practices and Common Procedures guides
- Up to 96 HP ProLiant BL35p server blades fit in 42U rack in non-redundant power configuration; up to 80 HP ProLiant BL35p server blades fit in 42U in full power redundant configuration
- Protected by HP Services and a worldwide network of resellers and service providers. Three-year parts, 1 year labor and 1 year on-site limited global warranty. Certain restrictions and exclusions apply. Pre-Failure Notification on processors, memory, and SCSI hard drives.
- All ATA hard drives offered by HP carry a one year warranty regardless of the base system in which they are installed

Standard Features (Server Blade)

Processors	Single-Core AMD® Opteron™ processor Model 250 (2.4 GHz/1MB L2 cache/800MHz HyperTransport, 68 Watts)
	Dual-Core AMD Opteron™ processor Model 275 (2.2 GHz/1MB L2 cache/1 GHz HyperTransport, 68 Watts)
	Dual-Core AMD Opteron™ processor Model 270 (2.0 GHz/1MB L2 cache/1 GHz HyperTransport, 68 Watts)
	Dual-Core AMD Opteron™ processor Model 265 (1.8 GHz/1MB L2 cache/1 GHz HyperTransport, 68 Watts)

Upgradeability	Upgradeable to dual processing

Cache Memory	1MB Level 2 Cache per core
	2MB total for Dual-Core models

Chipset	AMD® Opteron™ 8000 series chipset

Memory
One of the following depending upon model

Type	PC3200 DDR 400 MHz (2 slots) 2:1 interleave	
Standard	1024 MB	(2 x 512 MB)
	2048 MB	(4 x 512 MB)
Maximum	16 GB max (using optional 333 MHz PC2700 DDR SDRAM)	
	8 GB max (using optional 400 MHz PC3200 DDR SDRAM)	

NOTE: Memory must be installed in pairs.

Network Adapter	Three (3) network adapters total:
	Two (2) NC7781 PCI-X Gigabit NICs (on a mezzanine card) with WOL and PXE
	One 10/100T NIC (embedded) dedicated to iLO management

Expansion Slots	No PCI slots; all features are integrated.
	Two (2) USB 1.1 ports, one (1) video port, one (1) iLO port and one (1) serial port
	Two (2) Local I/O cables ship with each server blade enclosure with enhanced backplane components (281404-B22 and 243564-B22)
	NOTE: Tested USB devices (keyboard, mouse, floppy) are listed in options section below.

Integrated Manageability	Integrated Lights-Out (iLO) Management Advanced (ASIC on the system board)

Internal Storage	Hard Drives	None ship standard

Maximum Internal Storage	120-GB (2 x 60-GB small form factor ATA, 5,400 rpm non-hot plug hard drives)
	144-GB (2 x 72-GB small form factor SAS, 10,000 rpm non-hot plug hard drives)

Standard Features (Server Blade)

Graphics	Integrated ATI Rage XL Video Controller with 8 MB SDRAM Video Memory

Graphics Resolution Supported	Resolution Color Depths	Depths 1280 x 1024, 64k, 256,16 1024 x 768, 16.7M, 64k, 256, 16 800 x 600, 16.7M, 64k, 256, 16 640 x 480, 16.7M, 64k, 256, 16

Fibre Channel on the HP ProLiant BL35p server blade

Two optional fibre channel adapters are supported by the HP ProLiant BL35p. Both adapters are mezzanine circuit boards which connect directly to the server blade system board. These optional fiber channel adapters are available via option kits and must be ordered separately.

- QLogic-based
  - Utilizes a QLogic ISP2312 chipset
  - The HP ProLiant BL35p Dual-Port Fibre Channel Adapter (P/N 354054-B21) is compatible with the HP ProLiant BL35p and HP ProLiant BL30p server blades. It cannot be used with an HP ProLiant BL20p, HP ProLiant BL25p, HP ProLiant BL35p SAS models, HP ProLiant BL40p, or HP ProLiant BL45p server blade.
  - Includes two small form factor pluggable transceivers with LC connectors for installation into the Patch Panel 2, CGESM or GbE2 Interconnect Switch (with the Storage Connectivity Kit)
- Emulex-based
  - Utilizes an Emulex Thor chipset
  - The Emulex-based FC Mezzanine for HP p-Class BladeSystem dual port Fibre Channel HBA (P/N 394588-B21) is compatible with the HP ProLiant BL25p, BL30p, BL35p, and BL45p server blades. It cannot be used with an HP ProLiant BL20p, HP ProLiant BL35p SAS model, or HP ProLiant BL40p server blade as these devices take a different Emulex card.
- Two ports on each Dual-port Fibre Channel Mezzanine Card provide a redundant Fibre Channel connection to each server blade
- Supports up to 2Gb/s Fibre Channel equipment
- There are no SFP's included in the Emulex mezzanine kit for use with ProLiant BL p-Class Fibre Channel pass-through interconnects. If you require SFPs for use with an Emulex mezzanine and a FC pass through interconnect please order an SFP option kit (P/N 397577-B21) which will provide 2 FC SFPs per option kit.

NOTE: Fibre Channel connectivity is not available on the HP ProLiant BL35p SAS models.

Compatible SAN

HP ProLiant BL35p server blades are optimized for StorageWorks arrays:

- Modular Smart Array 1000, Enterprise Virtual Array 5000 (EVA5000) V2, Enterprise Virtual Array 3000 (EVA3000), XP48, 128, 512, 1024

HP ProLiant BL35p server blades are compatible with select 3rd party SANs. Please refer to blade storage website for details: http://h18000.www1.hp.com/products/servers/proliant-bl/p-class/storage.html

Standard Features (Manageability)

ProLiant Essentials Foundation Pack Software for the ProLiant BL Server	HP Systems Insight Manger	HP Systems Insight Manager (HP SIM) help maximize system uptime and performance and reduce system maintenance costs by providing proactive notification of problems before those problems result in unplanned downtime or reduced productivity. HP SIM is easy to set up to work with the Insight Management Agents, integrated Light-Out and Remote Insight Light-Out Edition, and Version Control Agents to deliver robust fault, configuration, and asset management as well as remote administration. With HP Systems Insight Manager customers will also be able to take advantage of role-based security; the ability to manage ProLiant, Integrity, and HP9000 systems; and plug-ins for storage, client, printer, and power management as well as server rapid deployment, performance management, and workload management. For more details on HP Systems Insight Manager visit http://www.hp.com/go/hpsim.
	ProLiant Essentials Rapid Deployment Pack	Rapid Deployment Pack (RDP) is an automated deployment and provisioning solution for all ProLiant servers. RDP includes the Altiris Deployment Solution and ProLiant Integration Module featuring ProLiant server pre-configured events for OS installation, and optimized software drivers, firmware and management agents. Every RDP CD includes 10-node trial licenses for evaluation purposes. RDP requires a license for each server deployed and is available for purchase with blade servers. For more information, visit http://www.hp.com/servers/rdp.
	Management Agents	The Management Agents form the foundation for HP's Intelligent Manageability strategy. They provide direct, browser-based access to in-depth instrumentation built into HP servers, workstations, desktops, and portables, and send alerts to HP Systems Insight Manager and other enterprise management applications in case of subsystem or environmental failures. For additional information about the Management Agents and other management products from HP, please visit the management Web site at http://www.hp.com/servers/manage.
	Subscriber's Choice	Subscriber's Choice Driver and Support Alerts/Notifications is a web-based email subscription service that provides software and driver change notifications for ProLiant products. Sign up at http://www.hp.com/go/subscriberschoice and customize your profile to receive various new alerts as they become available, on a weekly or monthly basis.
	ROMPaq, support software, and configuration utilities	The latest software, drivers, and firmware fully optimized and tested for your ProLiant server and options, available in the RDP CD, SmartStart or downloadable from Software and Drivers download pages, linked from the SmartStart website at http://www.hp.com/servers/smartstart.
	Insight Diagnostics Online Edition	The most advanced configuration analysis, reporting and troubleshooting utilities used by HP and at your fingertips, available in SmartStart.

NOTE: For more information regarding ProLiant Essentials Software, please see the following URL: http://www.hp.com/servers/proliantessentials

Standard Features (Manageability)

Optional ProLiant Essentials Value Packs	Optional software offerings that selectively extend the functionality of an Adaptive Infrastructure to address specific business problems and needs:

- Intelligent Networking Pack - detects and analyzes network bottlenecks or broken network linkages and steers traffic to the optimum route based on network conditions, plus it provides an extra layer of protection. The virus throttle feature of the solution slows the propagation of fast spreading virus
- Performance Management Pack - identifies and explains hardware performance bottlenecks on ProLiant servers and attached options enabling users to better utilize their valuable resources.
- Virtualization Management Software - Get the most out of server virtualization by unifying the management of physical and virtual servers in HP Systems Insight Manager. The Virtual Machine Management Pack plug-in provides central management and control of VMware and Microsoft virtual machines and provides physical host to virtual machine association. The Server Migration Pack plug-in automates the manual task of migrating servers between physical or virtual platforms.
- Vulnerability and Patch Management Pack - integrates comprehensive vulnerability assessment and advanced patch management functions into HP Systems Insight Manager, to identify and resolve security vulnerabilities quickly, efficiently, and reliably.
- Workload Management Pack - provides easier management of complex environments, improving overall server utilization and enabling customers for the first time to confidently deploy multiple applications on a single multiprocessor ProLiant Server.

NOTE: Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to http://www.hp.com/servers/proliantessentials or the various ProLiant Essentials Value Pack product QuickSpecs for more information.

SmartStart	SmartStart is a tool that simplifies single server setup, providing a rapid way to deploy reliable and consistent server configurations. To obtain a copy of SmartStart for your blade server, redeem the coupon that is included with your Blade server or order your copy from the SmartStart web site. For more information, please visit the SmartStart Web site at http://www.hp.com/servers/smartstart. SmartStart version supported (minimum): SmartStart 7.20

OS Support: **Single-Core** 2.4 GHz model	Microsoft Windows 2000 Server Microsoft Windows 2000 Advanced Server Windows Server 2003, Web Edition Windows Server 2003, Standard Edition Windows Server 2003, Enterprise Edition Red Hat Enterprise Linux 3 Red Hat Enterprise Linux 4 SuSE Linux Enterprise Server 8 SuSE Linux Enterprise Server 9

NOTE: For a complete and up-to-date listing of supported OSs and versions, please visit our OS Support Matrix at: http://www.hp.com/go/supportos.
NOTE: For an up-to-date listing of the latest drivers available for the HP ProLiant BL35p, please see: http://h18023.www1.hp.com/support/files/server/us/family/model/6067.html.
NOTE: For a more complete and up-to-date information on Linux support, please visit HP Linux Web site at: http://h18000.www1.hp.com/products/servers/linux/hpLinuxcert.html.

Standard Features (Manageability)

OS Support: **Dual-Core** **1.8 GHz, 2.0 GHz, and** **2.2 GHz models**	Microsoft Windows 2000 Server (licensed by core) Microsoft Windows 2000 Advanced Server (licensed by core) Windows Server 2003, Standard Edition Windows Server 2003, Enterprise Edition Red Hat Enterprise Linux 3 Update 5 Red Hat Enterprise Linux 4 Update 2 SuSE Linux Enterprise Server 9 SP1

NOTE: For a complete and up-to-date listing of supported OSs and versions, please visit our OS Support Matrix at: http://www.hp.com/go/supportos.
NOTE: For an up-to-date listing of the latest drivers available for the HP ProLiant BL p-Class, please see: http://h18023.www1.hp.com/support/files/server/us/family/model/6067.html.
NOTE: For a more complete and up-to-date information on Linux support, please visit HP Linux Web site at: http://h18000.www1.hp.com/products/servers/linux/hpLinuxcert.html

---

Supported Software Offerings

VMware Virtualization Software

Red Hat Enterprise Linux and management bundle for HP BladeSystems

NOTE: For more information on HP Certified and Supported HP ProLiant Servers, please visit the VMware Server Support Matrix at: http://h18004.www1.hp.com/products/servers/software/vmware/hpvmwarecert.html

NOTE: For a more complete and up-to-date information on Linux for HP BladeSystems support, please visit HP Linux website at: http://h18000.www1.hp.com/products/quickspecs/12321_div/12321_div.HTML

Intelligent Manageability

Integrated Lights-Out (iLO) Advanced Pack

- HP BladeSystem wizard - blade and OS installation and configuration
- Static IP bay configuration
- Virtual Text and Graphical Remote Console
- Virtual CD-ROM and Virtual Floppy
- Virtual Power Button Control
- Dedicated LAN Connectivity
- Automatic IP Configuration via DHCP/DNS/WINS
- Industry Standard 128-bit Secure Sockets Layer (SSL) Security
- IML and iLO Event Logging
- Support for 12 user accounts with customizable access privileges

NOTE: For more information on iLO Advanced visit the website: http://www.hp.com/servers/ilo/

Automatic Server Recovery-2 (ASR-2)
HP Systems Insight Manager
Redundant ROM
Remote Flash ROM
ROM Based Setup Utility (RBSU)
Advanced Configuration and Power Interface Specification Ready (ACPI)
Server and Interconnect Switch Health Logs
Redundant Power Supply Utility
Pre-Failure Warranty (covers processors, as well as SCSI hard drives and memory)
Integrated Management Log (IML)
Network adapter teaming set-up utility

Standard Features (Manageability)

Availability
Dual-Port Fibre Channel Mezzanine Card for redundant SAN connections Redundant ROM on each server blade ECC Memory Network adapter teaming (network fault tolerance, transmit load balancing, switch-assisted load balancing)

Security
Power-on password
Administrator's password
Integrated Lights-Out provides user authentication via directory services or 12 customizable user accounts
Integration Lights-Out supports SSH and SSL encryption
Integrated Lights-Out can be disabled via a Global Setting

Factory Express Portfolio for Servers and Storage
HP Factory Express offers configuration, customization, integration and deployment services for HP servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HP products supported through Factory Express include a wide array of servers and storage: HP Integrity, HP ProLiant, HP ProLiant Server Blades, HP BladeSystem, HP 9000 servers as well as the MSA1000, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches.

For more information on Factory Express services for your specific server model please contact your sales representative or go to http://www.hp.com/go/factory-express.

Service and Support
This product is covered by a global limited warranty and supported by HP Services and a worldwide network of resellers and service providers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Additional support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HP Care Pack services or customized service agreements.

NOTE: Server Blade Limited Warranty includes 3 year Parts, 3 year Labor, 3-year on-site support. This warranty supports the HP ProLiant BL20p, HP ProLiant BL25p, HP ProLiant BL40p and HP ProLiant BL45p Server Blades.
NOTE: Server Blade Limited Warranty includes 3 year Parts, 1 year Labor, 1-year on-site support. This warranty supports the HP ProLiant BL30p and HP ProLiant BL35p Server Blades.
NOTE: Server Blade Enclosure Limited Warranty includes 3 year Parts, 3 year Labor, 3-year on-site support.
NOTE: Server Blade Interconnect Limited Warranty includes 3 year Parts, 3 year Labor, 3-year on-site support
NOTE: ATA drives have a 1 year warranty.

A full range of HP Care Pack hardware and software services are available including:

- Installation and start up
- Education courses
- Extended onsite hardware coverage hours from same business day 13 hours, 5 day to 24 hours, 7 days call window with options including 4-hour response or 6-hour Call To Repair
- Comprehensive range of software technical support for Microsoft, Linux, ProLiant Essentials and VMware-based IT solutions helping to deliver high level of application availability. Response times

Standard Features (Manageability)

range from 30 mins for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

HP has introduced a new building block approach which allows customers to purchase the right coverage at the right time whether purchasing an initial server blade plus enclosure or purchasing additional ProLiant server blades over time. HP will offer two sets of Care Pack services, one designed to support the server blade and one designed to support the enclosure.

HP Care Pack services for HP ProLiant Server Blades cover the server blade and all HP branded hardware options qualified for the server, purchased at the same time or afterwards, internal to the server.

HP Care Pack services for HP BladeSystem p-Class Server Blade Enclosure covers the enclosure including patch panels, HP supported Ethernet interconnects, power enclosure with power supplies and power distribution.

NOTE: For more information regarding the Blade service portfolio visit our worldwide web site on the internet at: http://h20219.www2.hp.com/services/cache/81725-0-0-225-121.html

NOTE: For more information on HP Care Pack services, contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at: http://www.hp.com/hps/carepack

NOTE: For more complete information on HP Services offerings, customers and resellers, please visit us at: http://www.hp.com/hps

NOTE: Additional information regarding worldwide limited warranty and technical support is available at: http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html

Models

Dual-Core Models

ProLiant BL35p 2.2GHz-1MB, DC, 2GB, SAS (2P) 395222-B21		
	Processor(s)	Two (2) Dual-Core AMD Opteron™ 200 Series processors Model 275 2.2 GHz (68 Watts) standard
	Cache Memory	1MB Level 2 writeback per core
	Memory	2048 MB (standard) of PC3200 DDR SDRAM 400 MHz 8 GB (maximum) of PC3200 DDR SDRAM 400 MHz 16 GB (maximum) of PC2700 DDR SDRAM 333 MHz 2-way interleaved, 4 DIMM slots
	Network Adapter	Two (2) NC7781 PCI-X Gigabit NICs (on a mezzanine card) with WOL and PXE One (1) 10/100T NIC (embedded) dedicated to iLO management
	Storage Controller	Internal 4 Port SAS HBA (on a mezzanine card) supports RAID 0 or 1
	Hard Drives	None ship standard
	Internal Storage	Up to 144-GB maximum (with optional non-hot plug SAS hard drives)
	Optical Drive	None
	Form Factor	Plugs vertically into HP BladeSystem p-Class Blade Sleeve. Blade sleeve supports 1 or 2 BL30p and BL35p blades, or any combination of BL30p and BL35p blades. Blade sleeve plugs vertically into HP BladeSystem p-Class Enhanced Server Blade Enclosure

ProLiant BL35p 1.8GHz-1MB, DC, 1GB, SAS (1P) 394876-B21		
	Processor(s)	One (1) Dual-Core AMD Opteron™ processor Model 265 1.8 GHz (68 Watts) standard (up to 2 supported)
	Cache Memory	1MB Level 2 writeback per core
	Memory	1024 MB (standard) of PC3200 DDR SDRAM 400 MHz 8 GB (maximum) of PC3200 DDR SDRAM 400 MHz 16 GB (maximum) of PC2700 DDR SDRAM 333 MHz 2-way interleaved, 4 DIMM slots
	Network Adapter	Two (2) NC7781 PCI-X Gigabit NICs (on a mezzanine card) with WOL and PXE One (1) 10/100T NIC (embedded) dedicated to iLO management
	Storage Controller	Internal 4 Port SAS HBA (on a mezzanine card) supports RAID 0 or 1
	Hard Drives	None ship standard
	Internal Storage	Up to 144-GB maximum (with optional non-hot plug SAS hard drives)
	Optical Drive	None
	Form Factor	Plugs vertically into HP BladeSystem p-Class Blade Sleeve. Blade sleeve supports 1 or 2 BL30p and BL35p blades, or any combination of BL30p and BL35p blades. Blade sleeve plugs vertically into HP BladeSystem p-Class Enhanced Server Blade Enclosure

Models

ProLiant BL35p 2.2GHz-1MB, DC, 2GB (2P)	Processor(s)	Two (2) Dual-Core AMD Opteron™ processors Model 275 2.2 GHz (68 Watts) standard
392446-B21	Cache Memory	1MB Level 2 writeback per core
	Memory	2048 MB (standard) of PC3200 DDR SDRAM 400 MHz 8 GB (maximum) of PC3200 DDR SDRAM 400 MHz 16 GB (maximum) of PC2700 DDR SDRAM 333 MHz 2-way interleaved, 4 DIMM slots
	Network Adapter	Two (2) NC7781 PCI-X Gigabit NICs (on a mezzanine card) with WOL and PXE One (1) 10/100T NIC (embedded) dedicated to iLO management
	Hard Drives	None ship standard
	Internal Storage	Up to 120-GB maximum (with optional non-hot plug ATA hard drives)
	Optical Drive	None
	Form Factor	Plugs vertically into HP BladeSystem p-Class Blade Sleeve. Blade sleeve supports 1 or 2 BL30p and BL35p blades, or any combination of BL30p and BL35p blades. Blade sleeve plugs vertically into HP BladeSystem p-Class Enhanced Server Blade Enclosure

ProLiant BL35p 2.0GHz-1MB, DC, 2GB (2P)	Processor(s)	Two (2) Dual-Core AMD Opteron™ processors Model 270 2.0 GHz (68 Watts) standard
392448-B21	Cache Memory	1MB Level 2 writeback per core
	Memory	2048 MB (standard) of PC3200 DDR SDRAM 400 MHz 8 GB (maximum) of PC3200 DDR SDRAM 400 MHz 16 GB (maximum) of PC2700 DDR SDRAM 333 MHz 2-way interleaved, 4 DIMM slots
	Network Adapter	Two (2) NC7781 PCI-X Gigabit NICs (on a mezzanine card) with WOL and PXE One (1) 10/100T NIC (embedded) dedicated to iLO management
	Hard Drives	None ship standard
	Internal Storage	Up to 120-GB maximum (with optional non-hot plug ATA hard drives)
	Optical Drive	None
	Form Factor	Plugs vertically into HP BladeSystem p-Class Blade Sleeve. Blade sleeve supports 1 or 2 BL30p and BL35p blades, or any combination of BL30p and BL35p blades. Blade sleeve plugs vertically into HP BladeSystem p-Class Enhanced Server Blade Enclosure

QuickSpecs

Models

ProLiant BL35p 1.8GHz-1MB, DC, 1GB (1P) 392450-B21	Processor(s)	One (1) Dual-Core AMD Opteron™ processor Model 265 1.8 GHz (68 Watts) standard (up to 2 supported)
	Cache Memory	1MB Level 2 writeback per core
	Memory	1024 MB (standard) of PC3200 DDR SDRAM 400 MHz 8 GB (maximum) of PC3200 DDR SDRAM 400 MHz 16 GB (maximum) of PC2700 DDR SDRAM 333 MHz 2-way interleaved, 4 DIMM slots
	Network Adapter	Two (2) NC7781 PCI-X Gigabit NICs (on a mezzanine card) with WOL and PXE One (1) 10/100T NIC (embedded) dedicated to iLO management
	Hard Drives	None ship standard
	Internal Storage	Up to 120-GB maximum (with optional non-hot plug ATA hard drives)
	Optical Drive	None
	Form Factor	Plugs vertically into HP BladeSystem p-Class Blade Sleeve. Blade sleeve supports 1 or 2 BL30p and BL35p blades, or any combination of BL30p and BL35p blades. Blade sleeve plugs vertically into HP BladeSystem p-Class Enhanced Server Blade Enclosure

Single-Core Models

ProLiant BL35p 2.4GHz-1MB, 1GB (1P) 374211-B21	Processor(s)	One (1) Single-Core AMD Opteron™ processor Model 250 2.4 GHz (68 Watts) standard (up to 2 supported)
	Cache Memory	1MB Level 2 writeback per processor
	Memory	1024 MB (standard) of PC3200 DDR SDRAM 400 MHz 8 GB (maximum) of PC3200 DDR SDRAM 400 MHz 16 GB (maximum) of PC2700 DDR SDRAM 333 MHz 2-way interleaved, 4 DIMM slots
	Network Adapter	Two (2) NC7781 PCI-X Gigabit NICs (on a mezzanine card) with WOL and PXE One (1) 10/100T NIC (embedded) dedicated to iLO management
	Hard Drives	None ship standard
	Internal Storage	Up to 120-GB maximum (with optional non-hot plug ATA hard drives)
	Optical Drive	None
	Form Factor	Plugs vertically into HP BladeSystem p-Class Blade Sleeve. Blade sleeve supports 1 or 2 BL30p and BL35p blades, or any combination of BL30p and BL35p blades. Blade sleeve plugs vertically into HP BladeSystem p-Class Enhanced Server Blade Enclosure

Models

ProLiant BL35p 2.4GHz - 1MB, 2GB (2P) 374212-B21	Processor(s)	Two (2) Single-Core AMD Opteron™ processors Model 250 2.4 GHz (68 Watts) standard
	Cache Memory	1MB Level 2 writeback per processor
	Memory	2048 MB (standard) of PC3200 DDR SDRAM 400 MHz 8 GB (maximum) of PC3200 DDR SDRAM 400 MHz 16 GB (maximum) of PC2700 DDR SDRAM 333 MHz 2-way interleaved, 4 DIMM slots
	Network Adapter	Two (2) NC7781 PCI-X Gigabit NICs (on a mezzanine card) with WOL and PXE One (1) 10/100T NIC (embedded) dedicated to iLO management
	Hard Drives	None ship standard
	Internal Storage	Up to 120-GB maximum (with optional non-hot plug ATA hard drives)
	Optical Drive	None
	Form Factor	Plugs vertically into HP BladeSystem p-Class Blade Sleeve. Blade sleeve supports 1 or 2 BL30p and BL35p blades, or any combination of BL30p and BL35p blades. Blade sleeve plugs vertically into HP BladeSystem p-Class Enhanced Server Blade Enclosure

ProLiant BL35p 2.4GHz-1M, 2GB (2P) Server Blade Multi-Pack 374214-B21 NOTE: Multi-pack contains 8 HP ProLiant BL35p server blades, 4 HP BladeSystem p-Class Blade Sleeves and 8 licenses for Rapid Deployment Pack.	Processor(s)	Two (2) Single-Core AMD Opteron™ processors Model 250 2.4 GHz (68 Watts) standard
	Cache Memory	1MB Level 2 writeback per processor
	Memory	2048 MB (standard) of PC3200 DDR SDRAM 400 MHz 8 GB (maximum) of PC3200 DDR SDRAM 400 MHz 16 GB (maximum) of PC2700 DDR SDRAM 333 MHz 2-way interleaved, 4 DIMM slots
	Network Adapter	Two (2) NC7781 PCI-X Gigabit NICs (on a mezzanine card) with WOL and PXE One (1) 10/100T NIC (embedded) dedicated to iLO management
	Hard Drives	None ship standard
	Internal Storage	Up to 120-GB maximum (with optional non-hot plug ATA hard drives)
	Optical Drive	None
	Form Factor	Plugs vertically into HP BladeSystem p-Class Blade Sleeve. Blade sleeve supports 1 or 2 BL30p and BL35p blades, or any combination of BL30p and BL35p blades. Blade sleeve plugs vertically into HP BladeSystem p-Class Enhanced Server Blade Enclosure

Configuration Information - Factory Integrated Models (North America only)

NOTE: For Configure to Order requirements within EMEA region, please consult local Sales Contact.
NOTE: HP does not allow factory integration of options into standard models listed above.
Configure-to-order servers must start with a CTO Chassis.
NOTE: This product offering does not support HP Factory Express Server Configuration Level 1.

Step 1: Base Server Blade Configuration

Model	HP ProLiant BL35p Configurable Model CTO Blade	382734-405

Factory Integrated Model ships with:
- One embedded 10/100T NIC for iLO
- Integrated Lights-Out (iLO) Management with Advanced Pack features

	HP ProLiant BL35p SAS Configurable Model CTO Blade	398605-405

Factory Integrated Model ships with:
- Internal 4 Port SAS HBA (on a mezzanine card)
- One embedded 10/100T NIC for iLO
- Integrated Lights-Out (iLO) Management with Advanced Pack features
NOTE: HP ProLiant BL35p SAS Configurable Model CTO Blade (P/N 398605-405)
does not support single-core processors.

Step 2: Choose Required Options (only one of the following from each list unless otherwise noted)

Processor	Dual-Core AMD Opteron™ Model 275 2.2 GHz/68W FIO ALL	392447-L21

NOTE: If dual processor configurations are desired, select one 392447-L21 and one
392447-B21.

	Dual-Core AMD Opteron™ Model 270 2.0 GHz/68W FIO ALL	392449-L21

NOTE: If dual processor configurations are desired, select one 392449-L21 and one
392449-B21.

	Dual-Core AMD Opteron™ Model 265 1.8 GHz/68W FIO ALL	392451-L21

NOTE: If dual processor configurations are desired, select one 392451-L21 and one
392451-B21.

	Single-Core AMD Opteron™ Model 250 2.4 GHz/68W FIO ALL	381883-L21

NOTE: If dual processor configurations are desired, select one 381883-L21 and one
381883-B21.

Configuration Information - Factory Integrated Models (North America only)

Memory	**For 1 GB Total Memory:**	
	1 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 512 MB)	376638-B21
	For 2 GB Total Memory, choose A or B:	
	A) 2 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 1024 MB)	376639-B21
	B) 2 x 1 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 512 MB)	376638-B21
	For 4 GB Total Memory, choose A or B:	
	A) 4 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 2048 MB)	379300-B21
	B) 2 x 2 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 1024 MB)	376639-B21
	For 8 GB Total Memory, choose A or B:	
	A) 8 GB PC2700 DDR SDRAM DIMM Memory Kit (2 x 4096 MB)	395409-B21
	B) 2 x 4 GB PC3200 DDR SDRAM DIMM Memory Kit (2 x 2048 MB)	379300-B21
	For 16 GB Total Memory:	
	2 x 8 GB PC2700 DDR SDRAM DIMM Memory Kit (2 x 4096 MB)	395409-B21

NOTE: Two-way interleaving memory is enabled when an identical pair of DIMMs is installed.
NOTE: Maximum performance in a two processor (2P) server blade is achieved when Option B memory configurations are utilized.

Communications	HP ProLiant BL25/35/45p NIC Mezz FIO Base	382850-B21
NOTE: Must select one	Or upgrade to:	
	HP ProLiant BL25p/35p/45p Dual NC370i Multifunction Network Adapter	384043-B21

NOTE: The HP BladeSystem Multifunction iSCSI and RDMA features are not currently supported in a Linux environment. Future support is planned.
NOTE: 2 GB minimum memory configuration is required for Multifunction Network Adapter support.

Step 3: Choose Additional Options for Factory Integration

Hard Drive	**SAS - Universal Hard Drive**	
	36-GB SAS 10,000 rpm Hard Drive (2.5")	384038-B21
	72-GB SAS 10,000 rpm Hard Drive (2.5")	384141-B21
	NOTE: Supported on SAS models only	
	ATA Non-Hot Plug	
	60-GB ATA 5,400 rpm Hard Drive (2.5")	354052-B21

Configuration Information - Factory Integrated Models (North America only)

Fibre Channel Option	Emulex-based BL25/30/35/45p Dual Port Fibre Channel HBA	394588-B21

NOTE: SFPs for use with pass through SAN switches not included with the Emulex-based Fibre Channel Mezzanine card. If SFPs required please order the SFP option kit (P/N 397577-B21) which includes 2 2Gb SFPs per option kit.

HP 2-2Gb SFP for Fibre Channel pass through kit   397577-B21

NOTE: Must select if SFP for use with pass through SAN switches is required when ordering Emulex-based Fibre Channel Mezzanine card for HP p-Class BladeSystem (p/N 394757-B21.

BL30p/BL35p Dual Port Fibre Channel Adapter   354054-B21

NOTE: The BL30p/BL35p Dual Port Fibre Channel Adapter is QLogic based.

NOTE: For additional options, including HP BladeSystem p-Class blade sleeves, enhanced server blade enclosure, interconnect options and power subsystem options please refer to the "Options" section below.

NOTE: Fibre Channel connectivity is not available on the HP ProLiant BL35p SAS model (P/N 398605-405).

Options

NOTE: Some options may not be factory integratable. Please contact your local sales representative for additional information.

Unique Options	HP BladeSystem p-Class Blade Sleeve Kit	354101-B21

NOTE: Each blade sleeve supports one or two HP ProLiant BL30p/HP ProLiant BL35p server blades. HP ProLiant BL30p and BL35p server blades may be mixed within the blade sleeve.

ProLiant Essentials Value Pack Software

ProLiant Essentials Intelligent Networking Pack Windows Edition and Linux Edition

ProLiant Essentials Intelligent Networking Pack Windows Edition, Single Server License	372906-B21

NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.

ProLiant Essentials Intelligent Networking Pack Linux Edition, Single Server License	397004-B21

NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.

NOTE: For additional ProLiant Intelligent Networking Pack License Kits please see the QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/12062_div/12062_div.HTML
http://h18000.www1.hp.com/products/quickspecs/12327_div/12327_div.HTML

ProLiant Essentials Performance Management Pack

ProLiant Essentials Performance Management Pack, Single-Server License	306696-B21

NOTE: For use with a single server. Contains one license with a unique license activation key, HP Management CD and documentation.
NOTE: The most recent version of the software can always be downloaded at http://www.hp.com/products/pmp.

NOTE: For additional ProLiant Performance Management Pack License Kits please see the QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/11925_div/11925_div.HTML

ProLiant Essentials Rapid Deployment Pack Windows Edition and Linux Edition Release

Rapid Deployment Pack, Single-Server License	267196-B21

NOTE: This license allows 1 server to be deployed and managed via RDP.

Rapid Deployment Pack, Single-Server License (Japan)	267196-291

NOTE: This license allows 1 server to be deployed and managed via RDP.

NOTE: For additional ProLiant Essentials Rapid Deployment Pack License Kits please see the QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/11053_div/11053_div.HTML
http://h18000.www1.hp.com/products/quickspecs/11713_div/11713_div.HTML

ProLiant Essentials Server Migration Pack

ProLiant Essentials Server Migration Pack, Single-Migration License	375345-B21

NOTE: Contains one license, enabling 1 server migration, with a unique license activation key and documentation.
NOTE: This license allows 1 server to be migrated from a physical server to a virtual machine. Or this license can be used to migrate a virtual machine from one virtualization layer i.e. VMware GSX to a different virtualization layer such as VMware ESX or Microsoft Virtual Server 2005.

NOTE: For additional ProLiant Server Migration Pack License Kits please see the QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/12328_div/12328_div.HTML

Options

ProLiant Essentials Workload Management Pack

ProLiant Essentials Workload Management Pack, Single Server License   303284-B21
NOTE: For additional ProLiant Workload Management Pack License Kits please see the QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/11452_div/11452_div.HTML

ProLiant Essentials Virtual Machine Management Pack

ProLiant Essentials Virtual Machine Management Pack, Single-Server License   372214-B21
NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.

NOTE: For additional ProLiant Virtual Machine Management Pack License Kits please see the QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/12328_div/12328_div.HTML

ProLiant Essentials Vulnerability and Patch Management Pack

ProLiant Essentials Vulnerability and Patch Management Pack, Single-Server License   371645-B21
NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.

NOTE: For additional ProLiant Vulnerability and Patch Management Pack License Kits, please see the QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/12111_div/12111_div.HTML

NOTE: Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to http://www.hp.com/servers/proliantessentials or the various ProLiant Essentials Value Pack product QuickSpecs for more information.
NOTE: For more information regarding ProLiant Essentials Software, please see the following URL: http://www.hp.com/servers/proliantessentials.

Processor		
	Dual-Core AMD Opteron™ processor Model 275 2.2 GHz/1M/68W Processor Option Kit	392447-B21
	Dual-Core AMD Opteron™ processor Model 270 2.0 GHz/1M/68W Processor Option Kit	392449-B21
	Dual-Core AMD Opteron™ processor Model 265 1.8 GHz/1M/68W Processor Option Kit	392451-B21
	Single-Core AMD Opteron™ processor Model 250 2.4 GHz/1M/68W Processor Option Kit	381883-B21

Memory		
	8 GB Advanced ECC PC2700 DDR-333 SDRAM DIMM Memory Kit (2 x 4-GB)	395409-B21
	4 GB Advanced ECC PC3200 DDR-400 SDRAM DIMM Memory Kit (2 x 2-GB)	379300-B21
	2 GB Advanced ECC PC3200 DDR-400 SDRAM DIMM Memory Kit (2 x 1-GB)	376639-B21
	1 GB Advanced ECC PC3200 DDR-400 SDRAM DIMM Memory Kit (2 x 512 MB)	376638-B21

Options

Hard Drive	**SAS - Universal Hard Drive**	
	36-GB SAS 10,000 rpm Hard Drive (2.5")	384038-B21
	72-GB SAS 10,000 rpm Hard Drive (2.5")	384141-B21
	NOTE: Supported on SAS models only	
	ATA Non-Hot Plug	
	60-GB ATA 5,400 rpm Hard Drive (2.5")	354052-B21

Communications	**Multifunction NIC with support for iSCSI, RDMA, TOE:**	
	HP ProLiant BL25p/35p/45p Dual NC370i Multifunction Network Adapter	384043-B21
	NOTE: The HP BladeSystem Multifunction iSCSI and RDMA features are not currently supported in a Linux environment. Future support is planned.	
	NOTE: 2 GB minimum memory configuration is required for Multifunction Network Adapter support.	

ProLiant BL30p/BL35p Fibre Channel Adapter	Emulex-based BL25/30/35/45p Dual Port Fibre Channel HBA	394588-B21
	Dual-Port Fibre Channel Adapter (2Gb) Kit (option) for HP ProLiant BL30p or HP ProLiant BL35p server blades	354054-B21
	NOTE: This Fibre-Channel adapter is QLogic-based	
	NOTE: When using this adapter, Patch Panel 2, CGESM, or a GbE2 Interconnect Switch Kit (with Storage Connectivity Kit) must be used to provide pass through of the Fibre Channel signals.	
	NOTE: For additional information on HP Interconnect Kits please visit: http://h18000.www1.hp.com/products/quickspecs/12331_div/12331_div.HTML	
	NOTE: Fibre Channel connectivity is not available on the HP ProLiant BL35p SAS models.	

HP BladeSystem p-Class Other Options	HP BladeSystem p-Class Diagnostic Station	230743-B21
	NOTE: The Diagnostic Station allows access to the HP ProLiant p-Class server blades and the BL p-Class interconnect switch outside of the server blade enclosure. The option provides power and a data interface so that "offline" upgrade and diagnostic functions may be performed.	

Options

Tape Libraries	**HP StorageWorks MSL6000 Tape Library**	
	Ultrium 960 technology	
	MSL6030, 1 drive, 30 slots, Ultrium 960	AD606A
	MSL6030, 1 drive, 30 slots, Ultrium 960, with embedded FC router	AD608A
	MSL6060, 2 drive, 60 slots, Ultrium 960	AD607A
	MSL6060, 2 drive, 60 slots, Ultrium 960, with embedded FC router	AD609A
	SDLT 600 technology	
	MSL6052, 2 drive, 52 slots, SDLT 600	AD587A
	MSL6052, 2 drive, 52 slots, SDLT 600, with embedded FC router	AD588A
	Ultrium 460 technology	
	MSL6030, 1 drive, 30 slots, Ultrium 460	AD598A
	MSL6030, 1 drive, 30 slots, Ultrium 460, with embedded FC router	AD600A
	MSL6060, 2 drive, 60 slot Ultrium 460, with embedded FC router	AD601A

NOTE: Please reference the MSL6000 Tape Library QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at http://www.hp.com/go/ebs

	HP StorageWorks Virtual Library Systems	
	HP 6105 Virtual Library System	AF728A
	HP 6510 Virtual Library System	AF729A
	HP 6840 Virtual Library System	AG051A

NOTE: Please reference the Virtual Library Systems QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution. Reference current compatibility information at http://www.hp.com/go/ebs

Magneto-Optical Jukeboxes	**HP StorageWorks 9.1-GB Optical Jukeboxes**	
	600mx, 4 drive, 64 slot jukebox	C1160M
	1200mx, 4 drive, up to 128 slots	C1104M
	2200mx, 6 drive, up to 238 slots	C1107M

NOTE: Please see the HP StorageWorks Magneto-Optical Products data sheet for a complete listing of available jukeboxes at: http://www.hp.com/products1/storage/products/archivalprod/brochures/MO_family_pb.pdf
NOTE: Please reference the Magneto-Optical Jukebox data sheets at http://www.hp.com/go/optical for additional information needed to create a complete solution
NOTE: Please reference the Ultra Density Optical Jukebox QuickSpecs at http://www.hp.com/go/optical for additional information needed to create a complete solution

Options

Ultra Density Optical Jukeboxes	1900ux, 4 drive, 64 slot jukebox	AA966A
	3800ux, 4 drive, 128 slot jukebox	AA969A
	7100ux, 6 drive, 238 slot jukebox	AA971A

NOTE: Please see the HP StorageWorks Ultra Density Optical Jukeboxes QuickSpecs for a complete listing of available jukeboxes at:
http://h18006.www1.hp.com/products/quickspecs/11944_div/11944_div.html
NOTE: Please reference the Ultra Density Optical Jukebox QuickSpecs at http://www.hp.com/go/optical for additional information needed to create a complete solution

HP StorageWorks Modular Smart Array 1000	HP StorageWorks Modular Smart Array 1000	201723-B22

NOTE: Please see the StorageWorks Modular Smart Array 1000 QuickSpecs for additional options and configuration information at:
http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML (North America)
http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide)

Cluster Options	ProLiant Cluster Kit with OpenView Storage Mirroring	364025-B21
	ProLiant Cluster HA/F200 for the Entry Level SAN	364026-B22
	ProLiant Cluster HA/F200 for the Entry Level SAN	364026-292

NOTE: For additional information regarding the ProLiant Cluster for HA/F100, HA/F200 for Modular Smart Array 1000 please see the following QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/11035_na/11035_na.html (North America)
http://h18000.www1.hp.com/products/quickspecs/11035_div/11035_div.html (Worldwide)

	ProLiant Cluster Starter kit	364023-B21

NOTE: For additional information regarding the HP ProLiant Cluster for ProLiant Cluster HA/F500 for Enterprise Virtual Array please see the following QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/11055_na/11055_na.html (North America)
http://h18000.www1.hp.com/products/quickspecs/11055_div/11055_div.html (Worldwide)

NOTE: For additional information regarding the HP ProLiant Cluster for HA/F500 please see the following QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/10232_na/10232_na.html (North America)
http://h18000.www1.hp.com/products/quickspecs/10232_div/10232_div.html (Worldwide)

USB Options	USB 1.44-MB External Diskette Drive (Carbonite)	DC141B
	USB Optical Scroll Mouse (Carbonite)	DD441B

Options

HP Rack 5000 Series (Graphite Metallic)	HP 5642 Rack - Unassembled	358254-B21

Rack Options for Rack 5000 Series (Graphite Metallic)	Stabilizer kit for 5642 Rack (Graphite Carbon) NOTE: The stabilizing kit is used to prevent rack from tipping over	374493-B21
	Baying Kit for 5642 Rack (Graphite Carbon) NOTE: The baying kit is used to join two or more HP5642 racks.	374499-B21

Rack 10000 Series (Graphite Metallic)	HP Rack 10842 (42U) - Pallet NOTE: Server Blade Enclosures must be field integrated into the 10842 racks. Factory integration of Server Blade Enclosures into the 10842 is not supported	257415-B21
	HP Rack 10842 (42U) - Shock Pallet NOTE: Server Blade Enclosures must be field integrated into the 10842 racks. Factory integration of Server Blade Enclosures into the 10842 is not supported	257415-B22
	HP S10614 (14U) Rack Cabinet - Shock Pallet	292302-B22
	HP Rack 10647 (47U) Cabinet - Pallet	245160-B21
	HP Rack 10647 (47U) Cabinet - Crated	245160-B23
	HP Rack 10642 (42U) Cabinet - Pallet	245161-B21
	HP Rack 10642 (42U) Cabinet - Shock Pallet	245161-B22
	HP Rack 10642 (42U) Cabinet - Crated	245161-B23
	HP Rack 10636 (36U) Cabinet - Pallet	245162-B21
	HP Rack 10636 (36U) Cabinet - Shock Pallet	245162-B22
	HP Rack 10636 (36U) Cabinet - Crate	245162-B23
	HP Rack 10622 (22U) Cabinet - Pallet	245163-B21
	HP Rack 10622 (22U) Cabinet - Shock Pallet	245163-B22
	HP Rack 10622 (22U) Cabinet - Crated	245163-B23

NOTE: -B21 (pallet) used to ship empty racks shipped on a truck
-B22 (shock pallet) used to ship racks with equipment installed (by custom systems, VARs and Channels)
-B23 (crated) used for air shipments of empty racks
Not all HP equipment is qualified to be shipped in the Rack 10000 series.

NOTE: Please see the Rack 10000 QuickSpecs for Technical Specifications such as height, width, depth, weight, and color:
http://h18000.www1.hp.com/products/quickspecs/10995_div/10995_div.HTML (Worldwide)
http://h18000.www1.hp.com/products/quickspecs/10995_na/10995_na.HTML (North America)

NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html

Options

Rack Options for HP Rack 10000 Series	HP Rack Plinth Kit (Carbon)	251960-B21
	HP Rack Light Kit (Neon)	361589-B21
	42U Side Panel – Graphite Metallic	246099-B21
	36U Side Panel – Graphite Metallic	246102-B21
	47U Side Panel – Graphite Metallic	255486-B21
	Zero drive 3U Rackmount Enclosure	2T-27433-02
	5U Rackmount Kit All	274339-B21

NOTE: For additional information regarding Rack Options, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html.

TFT7210R Rack Mounted 17" Monitor	348373-B21
TFT5600 Rack Keyboard Monitor	221546-xx1
1U Rack Keyboard & Drawer (Carbon)	257054-xx1

Country Code Key (for TFT5600 RKM Rack Keyboard Monitor (PN 221546-xx1) and 1U Rack Keyboard & Drawer (Carbon) (P/N 257054-xx1))

XX = 00	US	XX = 09	Norway
XX = 03	UK	XX = 10	Sweden/Finland
XX = 04	Germany	XX = 11	Switzerland
XX = 05	France	XX = 13	Portugal
XX = 06	Italy	XX = 18	Belgium
XX = 07	Spain	XX = 29	Japan
XX = 08	Denmark	XX = B3	International

NOTE: For additional information regarding Rack Options, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html

NOTE: For a complete list of Monitors please view the following URL: http://h18004.www1.hp.com/products/monitors/

HP KVM Switch Options	HP BladeSystem Cat 5 KVM Interface Adapter	AF100A
	HP 1x1x16 IP Console Switch	262585-B21
	HP 3x1x16 IP Console Switch	262586-B21
	HP 0x1x8 Server Console Switch	336044-B21
	HP 0x2x16 Server Console Switch	336045-B21
	PS/2 Interface Adapter, 1-pack	262588-B21
	PS/2 Interface Adapter, 8-pack	262587-B21
	USB Interface Adapter, 1-pack	336047-B21
	Serial Interface Adapter, 1-pack with power supply	373045-B21

NOTE: Cat5e cables are required to connect Interface Adapters to Consoles Switches. Cat52 cables can be found at the following URL: http://www.hp.com/go/kvm

HP 1x4 USB/PS2 KVM Switch, TT (NA/JPN)	371301-D71
HP 1x4 USB/PS2 KVM Switch, TT (AU/NZ)	371301-011
HP 1x4 USB/PS2 KVM Switch, TT (UK)	371301-031
HP 1x4 USB/PS2 KVM Switch, TT (EU)	371301-A21

Options

HP 1x4 USB/PS2 KVM Switch, RM (ALL)   371302-B21

HP PS2 KVM Cable with audio, 6'-2-pack   371730-B21

HP USB KVM Cable with audio, 6'-2-pack   371729-B21

NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/kvm

Service and Support Offerings (HP Care Pack Services)

NOTE: The HP Care Pack service part numbers below for HP ProLiant BL p-Class server blades, cover the server blade and all HP branded hardware options qualified for the server, purchased at the same time or afterwards, internal to the server.

Hardware Services On-site Service

Next Business Day On-site Service, 5-Day x 9-Hour Coverage, 3 Years, Electronic   UD186E

4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years, Electronic   UD187E

4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic   UD188E

6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic   UD189E

NOTE: The HP Care Pack service part numbers below for HP BladeSystem p-Class server blade enclosure covers the enclosure including patch panels, HP supported Ethernet interconnects, power enclosure with power supplies and power distribution.

Hardware Services On-site Service

4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years, Electronic   HC031E

4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic   HC032E

6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic   HC033E

NOTE: The HP Care Pack service part numbers below covers the HP BladeSystem Brocade and McData SAN Switches.

Hardware Services On-site Service

Next Business Day On-site Service, 5-Day x 9-Hour Coverage, 3 Years, Electronic   UC007E

4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years, Electronic   UC008E

4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic   UC009E

6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic   UC023E

Installation & Start-up Services

HP Installation & Startup Service for HP BladeSystem Infrastructure, Electronic   UC905E

NOTE: - provides for an integrated hardware and software implementation that includes remote service planning, onsite deployment of hardware and software, installation verification testing and customer orientation. Hardware deployment covers the installation of a single BladeSystem enclosure that include server blades (up to 16), Ethernet network interconnect, and power options. Software deployment covers the installation and configuration of HP Systems Insight Manager (SIM), HP Rapid Deployment Pack (RDP), and deploy up to two operating system editions of either Windows or Linux, using scripted operating system installation software

ProLiant BL p-Class Blade Server Hardware Installation, Electronic   UA219E

ProLiant BL p-Class Enclosure and Server Blade Hardware Installation, Electronic   U4971E

Options

Provides for the Installation and Start-up of Compaq's Rapid Deployment Pack, Electronic	U5683E

NOTE: Provides installation on a Customer supplied server designated as a Deployment Server. Includes the deployment of a single server. This new server will be deployed using either one of the pre-configured scripts or an image. In addition, the service will provide for the capture and storage of the configuration of the newly deployed server and orientation on product usage. To be delivered during standard office ours, standard office days.

Provides for the Installation and Start-up of Rapid Deployment Pack Implementation of Rapid Deployment Pack (Basic) (Electronic)	UA042E
HP ProLiant Essentials Vulnerability and Patch Management Pack, Electronic	UC929E

NOTE: Installation and Startup Service. Service coverage: onsite installation of the Vulnerability and Patch Management (VPM) software on a customer designated server, configuration of the VPM software to acquire security patches, enabling the VPM software to scan up to five (5) systems, applying the security patches to the designated servers, generating a report from VPM that shows the vulnerability assessment results, and providing customer with an orientation to the software.

Provides for the Installation and Start-up of System Insight Manager (Electronic)	UA041E
Provides for the Installation and Start-up of System Insight Manager (Electronic)	UA040E

NOTE: For more information, customer/resellers can contact http://www.hp.com/hps/.

Software Operating Environment Care Packs

Microsoft Software Operating Environment Software Telephone 9x5 - 3 incident (Electronic)	U8169E
Red Hat Software Operating Environment Software Telephone 9x5 - 10 incident (Electronic)	U3402E
SUSE Software Operating Environment Software Telephone 9x5 - 3 incident (Electronic)	U9615E
ProLiant Essentials Operating Environment, - 5 Day, 8x5,1 year, 3 incident (Electronic)	U8222E

Memory

DIMM installation guidelines:

1. All DIMMs must be PC3200 DDR 400 MHz SDRAM DIMMs, or PC2700 DDR 333 MHz SDRAM DIMMS.
2. Both DIMM slots in a memory bank must be populated.
3. Both DIMMs in a memory bank must be identical.
4. Processor 1 memory bank must always be populated.
5. For optimal performance in most applications, populate the memory bank for every populated processor socket.
6. DIMM banks are active only when the corresponding processor socket is populated.

HP ProLiant BL35p Server Blade (1P model)

Standard Memory

1024 MB of PC3200 DDR SDRAM running at 400 MHz (2 x 512 MB)

Standard Memory Replaced with Optional Memory

Up to 4096 MB of PC3200 DDR SDRAM DIMM memory is available with the removal of standard memory and the installation of optional DDR SDRAM DIMM memory expansion kits.

Up to 8192 MB of PC2700 DDR SDRAM DIMM memory is available with the removal of standard memory and the installation of optional PC2700 SDRAM DDR DIMM memory expansion kits.

NOTE: Maximum memory configuration with one processor installed using PC3200 DDR SDRAM DIMMs is 4096 MB (2 x 2048 MB), or 8192 MB using PC2700 DDR SDRAM DIMMs (2 x 4096 MB.) Second processor must be installed in order to use the 2nd bank of memory (Slots 3 and 4.) Maximum memory configuration with two processors installed using PC3200 DDR SDRAM DIMMS is 8192 MB (4 x 2048 MB), or 16384 MB using PC2700 DDR SDRAM DIMMs (4 x 4096 MB.)

Memory		Slot			
		1	2	3	4
Standard	1024 MB	512 MB	512 MB	Empty	Empty
Optional	2048 MB	1024 MB	1024 MB	Empty	Empty
4 GB PC3200 Maximum	4096 MB	2048 MB	2048 MB	Empty	Empty
8 GB PC2700 Maximum	8192 MB	4096 MB	4096 MB	Empty	Empty

Following are memory options available from HP:

- 8192 MB of Advanced ECC PC2700 DDR-333 SDRAM DIMM Memory Kit (2 x 4 GB)   395409-B21
- 4096 MB of Advanced ECC PC3200 DDR-400 SDRAM DIMM Memory Kit (2 x 2 GB)   379300-B21
- 2048 MB of Advanced ECC PC3200 DDR SDRAM DIMM Memory Kit (2 x 1 GB)   376639-B21
- 1024 MB of Advanced ECC PC3200 DDR SDRAM DIMM Memory Kit (2 x 512 MB)   376638-B21

Memory

HP ProLiant BL35p Server Blade (2P model)
Standard Memory
2048 MB of PC3200 DDR SDRAM running at 400 MHz (4 x 512 MB)

Standard Memory Replaced with Optional Memory
Up to 8192 MB of PC3200 DDR SDRAM DIMM memory is available with the removal of standard memory and the installation of optional DDR SDRAM DIMM memory expansion kits.

Up to 16384 MB of PC2700 DDR SDRAM DIMM memory is available with the removal of standard memory and the installation of optional PC2700 SDRAM DDR DIMM memory expansion kits.

NOTE: Maximum memory configuration with one processor installed using PC3200 DDR SDRAM DIMMs is 4096 MB (2 x 2048 MB), or 8192 MB using PC2700 DDR SDRAM DIMMs (2 x 4096 MB.) Second processor must be installed in order to use the 2nd bank of memory (Slots 3 and 4.) Maximum memory configuration with two processors installed using PC3200 DDR SDRAM DIMMS is 8192 MB (4 x 2048 MB), or 16384 MB using PC2700 DDR SDRAM DIMMs (4 x 4096 MB.)

Memory		Slot			
		1	2	3	4
Standard	2048 MB	512 MB	512 MB	512 MB	512 MB
Optional	4096 MB	1024 MB	1024 MB	1024 MB	1024 MB
8 GB PC3200 Maximum	8192 MB	2048 MB	2048 MB	2048 MB	2048 MB
16 GB PC2700 Maximum	16384 MB	4096 MB	4096 MB	4096 MB	4096 MB

Following are memory options available from HP:
- 8192 MB of Advanced ECC PC2700 DDR-333 SDRAM DIMM Memory Kit (2 x 4 GB) 395409-B21
- 4096 MB of Advanced ECC PC3200 DDR-400 SDRAM DIMM Memory Kit (2 x 2 GB) 379300-B21
- 2048 MB of Advanced ECC PC3200 DDR SDRAM DIMM Memory Kit (2 x 1 GB) 376639-B21
- 1024 MB of Advanced ECC PC3200 DDR SDRAM DIMM Memory Kit (2 x 512 MB) 376638-B21

Technical Specifications

HP ProLiant BL35p Server Blade	Dimensions	Height	1.61 in (4.1 cm)
		Depth	25.35 in (64.4 cm)
		Width	4.72 in (12.0 cm)
	Weight	Maximum	8.19 lb (3.72 kg)
		No Drives Installed	7.76 lb (3.52 kg)
	Temperature Range*	Operating	50° to 95° F (10° to 35° C)
		Shipping	-40° to 140° F (-40° to 60° C)
		Storage	-4° to 140° F (-20° to 60° C)
		Maximum Wet Bulb Temperature	86° F (-30° C)
	Relative Humidity**	Operating	10% to 90%
		Shipping	10% to 90%
		Storage	10% to 95%

***NOTE:** All temperature ranges shown are for sea level. An altitude derating of 1°C per 304.8 m (1.8°F per 1,000 ft) to 3048 m (10,000 ft) is applicable. No direct sunlight allowed. Upper operating limit is 3,048 m (10,000 ft) or 70 Kpa/10.1 psia. Upper non-operating limit is 9,144 m (30,000 ft) or 30.3 KPa/4.4 psia.

****NOTE:** Storage maximum humidity of 95% is based on a maximum temperature of 45°C (113°F). Altitude maximum for storage corresponds to a pressure minimum of 70 KPa.